

Amendments to the Claims

This listing of Claims replaces all prior versions and listings of Claims in the application:

Claims

1 - 58 (Canceled)

59. (Previously presented): A plant expression cassette allowing in-seed tissue specific expression of non-degraded human lactoferrin wherein a gene encoding the human lactoferrin is operatively linked to a regulation element of protein basic globulin 7S or to a regulation element of protein β -conglycinine.

60. (Previously presented): The plant expression cassette according to claim 59, wherein said plant expression cassette includes the promoter of the gene coding for the protein basic globulin 7S.

61. (Previously presented): The plant expression cassette according to claim 60, wherein said promoter has the sequence of SEQ. ID NO 21.

62. (Previously presented): The plant expression cassette according to claim 59, wherein said plant expression cassette includes a leader sequence of the gene coding for the protein basic globulin 7S.

63. (Previously presented): The plant expression cassette according to claim 62 wherein said leader sequence is the sequence of SEQ. ID NO: 13.

64. (Previously presented): The plant expression cassette according to claim 59, wherein said plant expression cassette includes the promoter of the gene coding for the β -conglycinine protein.

65. (Previously presented): The plant expression cassette according to claim 64, wherein said promoter has the sequence of SEQ. ID NO 22.

66. (Previously presented): The plant expression cassette according to claim 59, wherein said plant expression cassette includes the leader sequence of the gene coding for the β -conglycinine protein.

67. (Previously presented): The plant expression cassette according to claim 66 wherein said leader sequence is the sequence of SEQ. ID NO: 14.

68. (Previously presented): The plant expression cassette of claim 59 wherein said gene encoding the human lactoferrin has the sequence of SEQ ID NO 1.

69. (Previously presented): A recombinant DNA vector comprising the plant expression cassette of claim 59.

70. (Previously presented): The recombinant DNA vector according to claim 69, wherein said plant expression cassette includes a promoter of the gene coding for the protein basic globulin 7S.

71. (Previously presented): The recombinant DNA vector according to claim 70, wherein said promoter has the sequence of SEQ. ID NO 21.

72. (Previously presented): The recombinant DNA vector according to claim 69, wherein said plant expression cassette includes the leader sequence of the gene coding for the protein basic globulin 7S.

73. (Previously presented): The recombinant DNA vector according to claim 72 wherein said leader sequence is the sequence of SEQ. ID NO: 13.

74. (Previously presented): The recombinant DNA vector according to claim 69, wherein said plant expression cassette includes the promoter of the gene coding for the β -conglycinine protein.

75. (Previously presented): The recombinant DNA vector according to claim 16, wherein said promoter has the sequence reported in the annexed sequence listing as SEQ. ID NO 22.

76. (Previously presented): The recombinant DNA vector according to claim 69, wherein said plant expression cassette includes the leader sequence of the gene coding for the β -conglycinine protein.
77. (Previously presented): The recombinant DNA vector according to claim 76 wherein said leader sequence is the sequence of SEQ. ID NO: 14.
78. (Previously presented): The recombinant DNA vector according to claim 69, wherein said plant expression cassette includes the gene coding for human lactoferrin having SEQ ID NO: 1.
79. (Previously presented): A method for using the vector according to claim 69 for the transformation of vegetal cells.
80. (Previously presented): A vegetal cell including the vector of claim 69.
81. (Previously presented): A cellular aggregation obtainable from cells according to claim 80.
82. (Previously presented): The cellular aggregation according to claim 81 wherein said aggregations are calluses capable of regenerating transgenic plants
83. (Previously presented): A transgenic plant, comprising the expression cassette of claim 59, said plant expressing in-seed the non degraded protein human lactoferrin.
84. (Previously presented): The transgenic plant according to claim 83, said plant being selected from the group consisting of solanaceae, cereals, leguminosae, fruit bearing plants and horticultural plants.
85. (Previously presented): The transgenic plant according to claim 84, said plant being selected from the group consisting of soya, tobacco and rice.
86. (Previously presented): A method of using the transgenic plant according to claim 83 for the production of non-degraded human lactoferrin.

87. (Previously presented): A method of using the transgenic plant according to claim 83 for the production of human lactoferrin flours or human lactoferrin extracts obtained from seeds of said transgenic plant.

88. (Previously presented): A method of using the transgenic plant according to claim 83 for the production of functional foods containing human lactoferrin.

89. (Previously presented): The method according to Claim 88, wherein said functional foods are selected from the group consisting of vegetal milks, fruit juices, fruit and/or vegetable homogenized foods.

90. (Previously presented): A method of using the transgenic plant of claim 83 for the production of nutraceuticals comprising human lactoferrin.